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10/30/96

## M E M O R A N D U M

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**Date:** October 30, 1996

**cc:** Ron Frehner (612) 639-0923

**From:** Peter Vagt

**Subject:** Sampling Plan Total PCB Field Screening  
PGCS Extraction Trench Alignment  
ACS NPL Site RD/RA

The sampling for total PCB concentrations in surficial soils/sediments along the PGCS Alignment is scheduled to begin at 8 AM CT at the ACS Site on Thursday, October 31, 1996.

A map of the revised alignment and a description of the sampling procedure is attached for your review.

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US EPA RECORDS CENTER REGION 5



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## **MONTGOMERY WATSON**

### **FIELD SAMPLING SPECIFIC OPERATING PROCEDURE (SOP)**

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#### **Sampling and Field Screening for Total PCBs along PGCS Extraction Trench Alignment**

##### **Scope and Application:**

The objective is to collect soil/sediment samples along the alignment of the Perimeter Groundwater Containment System (PGCS) extraction trench and analyze them for the presence of PCBs. Analysis will be at field screening level for total PCBs using the Omicron RaPID Assay Method. The SOP previously approved by U.S. EPA for the Barrier Wall Alignment Investigation, will be used for the analyses.

Soil/sediments are defined here as the material underlying a continuous or intermittent water body. As such, sediments can range from compacted clay to loose fine-grained materials. Typically rubble or rock bottoms are not sampled as part of a sediment investigation. Sediments may include organic soils and wetlands that are only periodically inundated or saturated. Soils will not be collected from upland areas, away from wetland soils and vegetation.

##### **Reagents and Apparatus:**

1. Sampling devices: coring tube and hand auger
2. Stainless steel bowls, spatulas, and spoons
3. Sample containers
4. Stakes and flagging to mark sampled locations
5. 100 or 200 foot measuring tape
6. Labels, record books/forms

##### **Procedures:**

1. Apply at least a temporary label to the sampling containers prior to sample collection. Label information must include the sampling location, and should include date, time, sampling personnel, and project number.
2. Locations for sampling will be selected at 100 foot or closer intervals along the alignment of the PGCS extraction trench. (The alignment was marked in the field on October 16, 1996 by U.S. EPA and Montgomery Watson, and is shown on the

**MONTGOMERY WATSON****FIELD SAMPLING SPECIFIC OPERATING PROCEDURE (SOP)**

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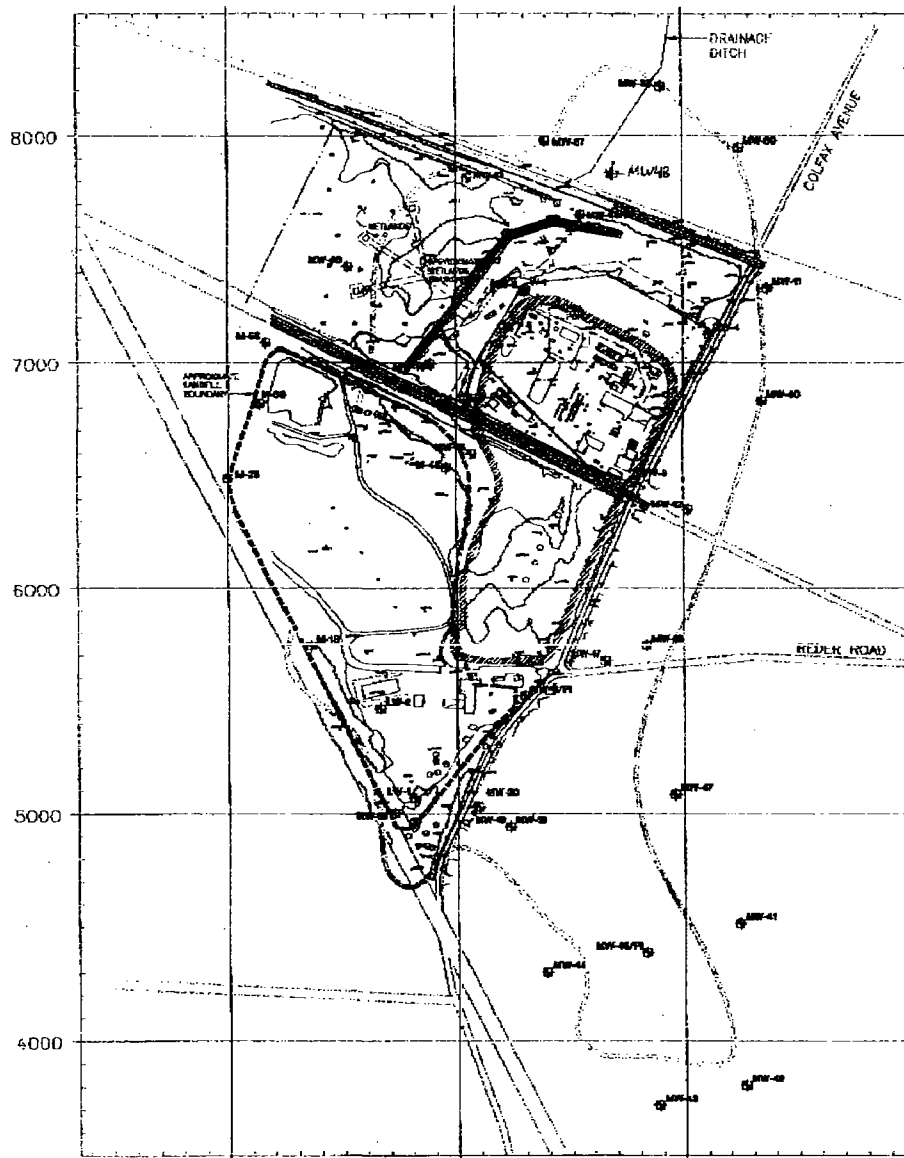
**Sampling and Field Screening for Total PCBs  
along PGCS Extraction Trench Alignment**

attached map). Locations will be selected in the field on the sampling day, with concurrence of the U.S. EPA or its oversight subcontractor.

3. Sample material will be collected to represent the upper 24 inches of the soil profile at each sampling location. At the specific sampling location, push, or twist the sampling device into the sediment to the required depth. (It may require two or more excursions of the sampling device to reach the full 24 inch depth.) Remove the sampler from the ground and transfer the sampler to a stainless steel bowl. A stainless steel spoon may be used to help transfer the sample to the bowl.
4. Composite sediments from the 24 inch column in the stainless steel bowl and mix them thoroughly with the stainless steel spoon prior to filling sample containers (samples will not be analyzed for VOCs). Fill two sample containers with sediment. One will be marked for field screening analysis, and the other will be marked for laboratory sampling. (Laboratory sampling may be conducted on the second sample if the field screening indicates total PCB concentrations above 10 ppm.) Sample volume will be made available to the U.S. EPA oversight contractor if requested.
5. Clean the sampling device, spoons or spatulas, and compositing bowl prior to use at the first sampling location and between sampling locations. Cleaning is by means of a tap water and detergent wash and tap water and deionized water rinses. A bristle brush may be used for the wash. Cleaning water will be discharged to the ground at the sampling location.
6. Sample descriptive information should be entered into a bound field notebook and/or field data sheet.

This document has been prepared by a qualified professional engineer and shall be used in accordance with the provisions of the Indiana Professional Engineers Act, which requires that all engineering work be done under the supervision of a duly licensed professional engineer.

Graphic Standards: CCN 10-22-88 Technical Review Project Manager  
 QUALITY CONTROL  
 Management Review

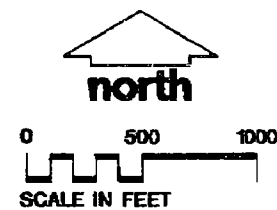


# LEGEND

- UPPER AQUIFER WELL LOCATION AND NUMBER
- TOTAL VOC CONCENTRATIONS GREATER THAN DETECTION LIMITS DETERMINED BY GEOPROBE INVESTIGATION
- APPROXIMATE LOCATION OF BARRIER WALL
- PERIMETER GROUNDWATER CONTAINMENT SYSTEM (PGCS)
- REVISED PGCs EXTRACTION TRENCH ALIGNMENT

## NOTES

- REVISED ALIGNMENT IS BASED ON SITE OBSERVATIONS BY U.S. EPA, BLACK & VEATCH, AND MONTGOMERY WATSON.



Developed By	CCM
Drawn By	CCM
Approved By	CCM
Reference	
Revisions	

Revised PGCs EXTRACTION TRENCH ALIGNMENT  
 PERIMETER GROUNDWATER CONTAINMENT SYSTEM  
 AMERICAN CHEMICAL SERVICE, INC.  
 NPL SITE  
 GRIFFITH, INDIANA

Drawing Number:  
 4077.0074 B6  
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